



MAIL STOP
AMENDMENT

1639

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: A.S. Hoffman et al. Attorney Docket No.: UWOTL119001
Application No.: 09/755,701 Group Art Unit: 1639
Filed: January 5, 2001 Examiner: M.-C.T. Tran
Title: ENHANCED TRANSPORT USING MEMBRANE DISRUPTIVE AGENTS

RESPONSE TRANSMITTAL LETTER

Seattle, Washington 98101

August 11, 2004

TO THE COMMISSIONER FOR PATENTS:

A. Response Transmittal

Transmitted herewith is an amendment in the above-identified application. No additional claim fee is required, as shown below.

COMPUTATION OF FEE FOR CLAIMS AS AMENDED

| | Claims Remaining After Amendment | | Highest Number Previously Paid For | | Present Extra | | Rate | | Additional Fee |
|--------------------|---|---|---|---|------------------|---|------|---|-------------------|
| Total Claims | 31 | - | 33 | = | 0 | x | 9 | = | 0 |
| Independent Claims | 3 | - | 3 | = | 0 | x | 43 | = | 0 |
| TOTAL | | | | | | | | | \$0 |

B. Additional Fee Charges or Credit for Overpayment

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.18 which may be required during the entire pendency of the application, or credit any

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overpayment, to Deposit Account No. 03-1740. This authorization also hereby includes a request for any extensions of time of the appropriate length required upon the filing of any reply during the entire prosecution of this application.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}

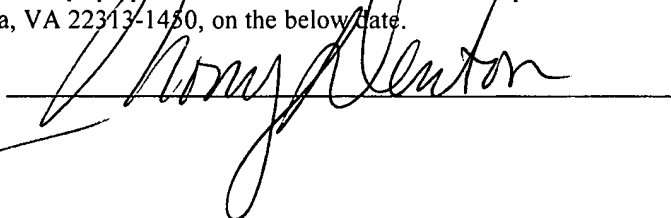


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Registration No. 37,919
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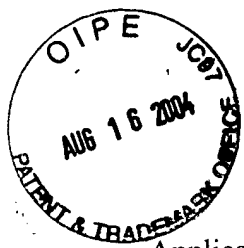
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SUPPLEMENTAL RESPONSE TO REQUIREMENT FOR ELECTION OF SPECIES

Seattle, Washington 98101

August 11, 2004

TO THE COMMISSIONER FOR PATENTS:

In response to the requirement for election of species mailed March 19, 2004, applicants elected the following:

- (a) hydrophobic component: the terpolymer of dimethylaminoethyl methacrylate (DMAEMA), butyl methacrylate (BMA), and styrene benzaldehyde, which is described in Example 2 and illustrated in Figures 4 and 5;
- (b) hydrophilic component: polyalkylene oxide (e.g., PEG);
- (c) pH-sensitive linkage: acetal;
- (d) agent: therapeutic agents (e.g., oligonucleotides);
- (e) ligand: antibody (e.g., IgG); and
- (f) carrier: microparticles.

On July 23, 2004, the Examiner issued a second request regarding the species elected by applicants. In the request, the Examiner states that the election is incomplete and confusing because (a) "a single species of hydrophilic component" was not provided and (b) it is unclear how the hydrophilic component is attached to form the claimed structure (i.e., a hydrophilic conjugate having a hydrophobic component linked to a hydrophilic component by a pH-sensitive

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linkage). Applicants believe that the original response to the election of species requirement is proper and offer the following clarifying remarks.

With regard to (a) above, applicants submit that they have elected a single hydrophilic component: polyalkylene oxide. However, applicants believe that in (a) above the Examiner may be referring to the "hydrophobic" component, rather than a "hydrophilic" component. Applicants respectfully submit that the terpolymer of dimethylaminoethyl methacrylate (DMAEMA), butyl methacrylate (BMA), and styrene benzaldehyde is a single "hydrophobic" component species. As stated in Example 2, a "terpolymer of dimethylaminoethyl methacrylate (DMAEMA), butyl methacrylate (BMA), and styrene benzaldehyde was chosen for the membrane disruptive backbone (see Figure 4)," that is, the terpolymer in the "hydrophobic component" of the "hydrophilic conjugate." Figure 4 provides an illustration of the hydrophilic conjugate having (1) a hydrophobic component (e.g., the terpolymer) covalently linked to (2) the hydrophilic component (e.g., polyalkylene oxide, PEG illustrated) through (3) a pH-sensitive linkage (e.g., acetal).

With regard to (b) above, applicants submit that Figure 4 clearly illustrates how and where the three components (i.e., hydrophobic component, pH-sensitive linkage, and hydrophilic component) of a representative hydrophilic conjugate are attached. Referring to Figure 4, the hydrophobic component (i.e., terpolymer) can be identified through its repeating units x, y, and z; the hydrophilic component (i.e., polyalkylene oxide) can be identified as "PEG;" and the pH-sensitive linkage (i.e., the acetal) is the functional group intermediate the aminobenzene portion of the hydrophobic component and the disulfide-linked PEG groups. As stated in the original response to the election of species requirement, Figure 4 shows the hydrophilic conjugate with its three components: (1) a hydrophobic component; (2) a hydrophilic component; and (3) a pH-sensitive linkage.

If, after further review of the specification and particularly Figure 4, the Examiner has further questions regarding the hydrophilic conjugate's components and the election of species, the Examiner is encouraged to telephone applicants' attorney at 206.695.1755.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}

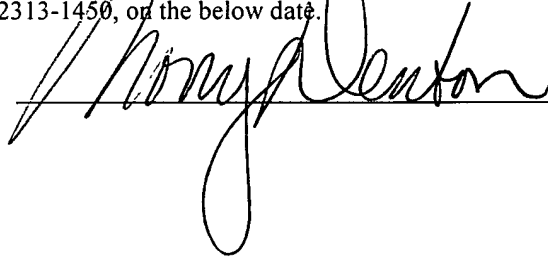


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